GOVERNMENT OF YUKON

PROTECTIVE SERVICES

ANNUAL REPORT

1983

TO: Honourable D. Lang
Minister of Municipal & Community Affairs

It is my pleasure to submit the Annual Report of activities in the Fire Marshal's Office of the Department of Municipal and Community Affairs, for 1983.

I would like to take this opportunity to express my thanks to all volunteer Firefighters and Ambulance Attendants throughout Yukon for their efforts, co-operation and dedication during the past year.

Respectfully submitted,

L. R. Hipperson

L.R. Hipperson
Director, Protective Services
and Fire Marshal

INTRODUCTION

This report is submitted for the information of anyone interested in the services and inspections performed by the Protective Services Branch of the Department of Municipal and Community Affairs

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Inspections

Protective Services is responsible for ensuring that adequate structural and safety standards are maintained in both new and existing structures throughout Yukon. The City of Whitehorse provide their own building, fire and plumbing inspections with both levels of government working closely to ensure that a uniform approach is taken to enforcing regulations.

The Branch is also responsible for inspecting all boilers, pressure vessels, elevators and fixed conveyances.

Fire and Ambulance Services

Protective Services is responsible for ensuring that fire fighting equipment is maintained in all communities and that volunteer firefighters are trained to acceptable standards.

The Branch also investigates fires to determine cause and origin.

Ambulances are supplied throughout Yukon to provide emergency care in communities and along highways. Training of ambulance attendants is a high priority.

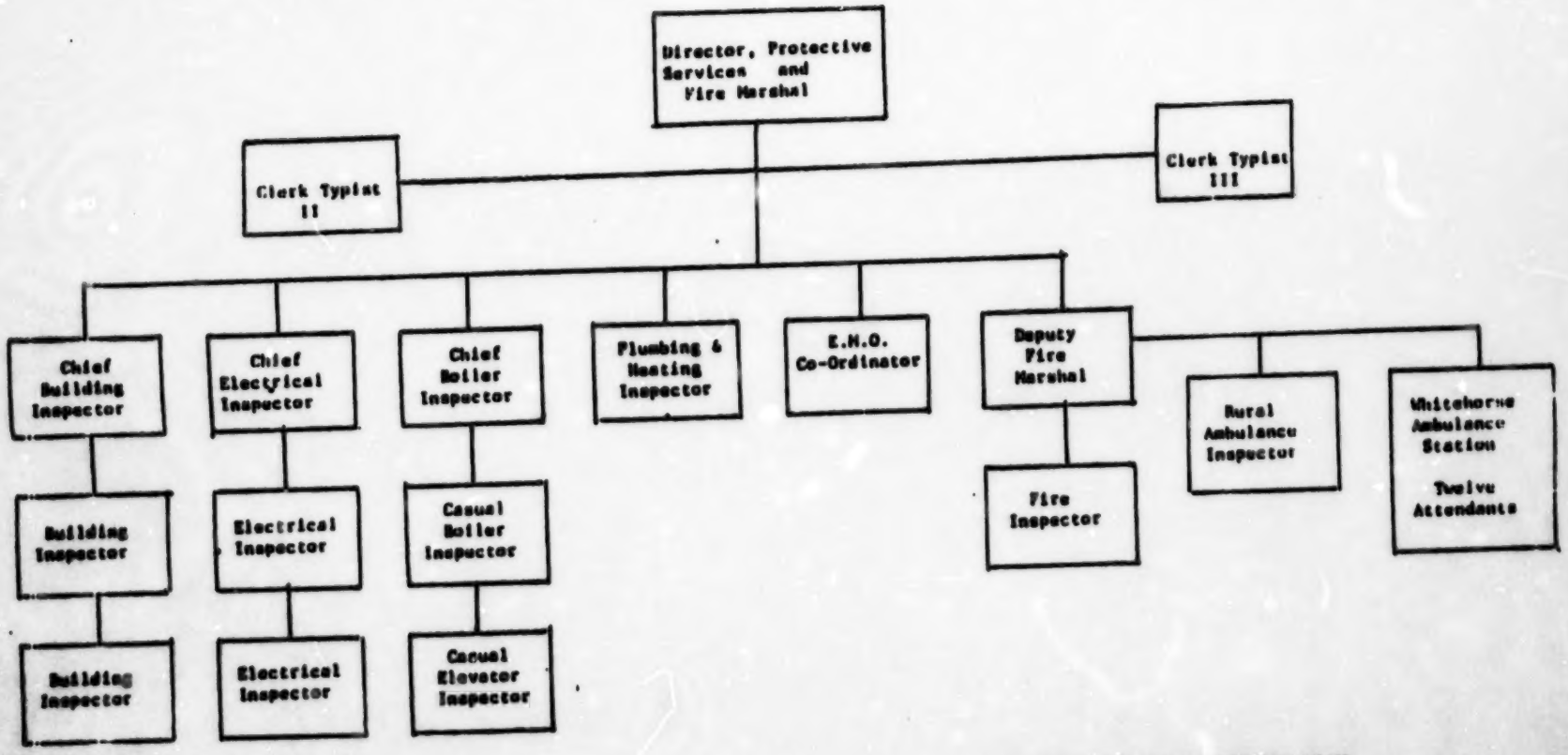
Regulations

The following Acts, regulations and standards are in full force and effect throughout Yukon:

Building Standards Act and Regulations (National Building Code)
Area Development Regulations
Canadian Electrical Code
Elevator and Fixed Conveyances Act
Fire Prevention Act and Regulations (National Fire Code)
Gasoline Handling Act and Regulations
Boiler and Pressure Vessels Act and Regulations
Civil Emergency Measures Act

ORGANIZATION:

The Branch is organized as follows:



PROTECTIVE SERVICES BRANCH
DEPT. MUNICIPAL & COMMUNITY AFFAIRS
GOVERNMENT OF YUKON

BUILDING INSPECTIONS - 1983

The total value of construction for the year 1983 is down 32% from the previous year. This was caused by the economic slump.

The fees collected for permits during 1983 are down 38%.

The total value of construction for the year 1983 is made up of approximately 3,578,000 dollars value for residential construction and 6,023,000 dollars for commercial construction.

The number of permits issued increased by 30% due to wood stove installation application.

The following figures are provided for comparison purposes:

Year	Number of Permits	Construction Value	Permit Fees
1979	329	$12,448,551.00	$35,172.25
1980	321	24,651,306.00	46,497.65
1981	259	15,568,149.00	39,289.75
1982	284	14,358,683.00	36,213.00
1983	380	9,601,586.75	22,321.50

INSPECTIONS CARRIED OUT

Year	Residential	Commercial	Industrial	Institute	Land	Liquor
1979	1228	453	166	34	111	6
1980	1882	328	153	10	123	2
1981	1449	307	189	18	118	13
1982	1268	273	142	23	64	15
1983	842	273	129	17	145	7

John Hutsul
A/Chief Building Inspector
Municipal & Community Affairs

ELECTRICAL INSPECTIONS - 1983

The electrical inspection service manpower was reduced by one person who was seconded to the Energy Branch and only returned on as a required basis.

The program of upgrading existing installations continued with a further reduction of electrical hazards in older homes.

There appeared to be a significant increase in commercial work by electrical contractors as a result of the upgrading of program for buildings by various government programs.

At the end of 1983 there was a reduction by 9 electrical contractors to bring the number of contractors to 24 in the Yukon and 3 non-resident contractors.

Respectfully submitted,

Vern Toews
Chief Electrical Inspector
Municipal and Community
Affairs

1983

ELECTRICAL INSPECTIONS

	Permits Issued Residential			Permits Issued Commercial			Preventative Inspections			Plan Approvals Commercial Bldg.			Kilometers			Number of Road Trips		
	1981	1982	1983	1981	1982	1983	1981	1982	1983	1981	1982	1983	1981	1982	1983	1981	1982	1983
January	15	21	13	20	9	11	6	4	3	6	6	7	9854	2253	1438	10	4	4
February	15	10	14	11	9	16	10	8	5	3	4	10	2507	3219	4972	6	5	9
March	19	78	13	16	21	18	9	7	8	4	11	10	5533	3380	4914	12	5	8
April	42	27	23	19	16	15	7	9	6	5	9	7	5942	6035	2602	12	8	6
May	67	27	37	28	25	19	6	5	4	7	15	12	5749	4748	6844	6	10	12
June	31	35	32	57	24	16	7	5	5	15	10	12	5459	9415	2972	12	9	8
July	64	29	18	20	8	28	10	7	7	11	4	14	10058	4345	5618	13	6	11
August	66	38	42	27	6	20	10	8	6	10	4	10	5687	3460	4222	10	6	6
September	70	35	47	24	26	12	12	10	5	9	12	6	8600	10573	8632	9	6	8
October	128	50	55	33	25	15	10	15	6	8	6	5	9762	2575	4862	10	5	8
November	31	30	33	19	25	22	9	10	7	7	5	8	5691	7081	5756	8	6	7
December	14	14	17	9	3	13	10	7	4	5	1	3	2826	1690	2814	5	2	7
TOTALS	572	394	344	183	177	205	106	95	66	90	87	104	77668	58774	55646	113	72	94

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PLUMBING AND HEATING INSPECTIONS - 1983

The number of plumbing and heating inspections are down slightly from previous years, owing to the lack of a casual inspector during the busy summer period. The number of solid fuel fired appliance installations continued to form a significant part of our inspections during 1983. Some 367 inspections were performed, not counting those installed as part of new construction.

A total of 409 plumbing inspections and 115 propane gas inspections were carried out over the year.

Total Plumbing Permits issued:	46	Total Value:	$489.50
Total Gas Permits issued:	12	Total Value:	$ 48.50

Roy Jackson
Plumbing/Heating Inspector
Municipal & Community Affairs

BOILER AND PRESSURE VESSELS INSPECTIONS REPORT 1983

The Yukon Territory has now over 725 boilers and pressure vessels registered. These boilers and pressure vessels are located in over 19 localities. Over 273 recorded inspections were conducted to promote a safer environment for residents in schools and public buildings in Yukon. Many potential hazards were noted and corrected.

A total of 46 new designs were approved for use in Yukon.

Thirty-six power engineer's and twenty pressure welder's examinations were conducted.

This Department was involved in the new Hydro Electric project involving the installation of the Fourth Wheel; approving the pressure piping and appurtenances, and certifying pressure welders and welding procedures. The project was commissioned in December 1983.

A training program was initiated for Fourth Class Engineers to provide certified personnel for schools and public buildings. This will undoubtedly lead to a safer environment and more efficient operation of heating plants throughout Yukon.

David W. Tessier
Chief Boiler Inspector
Municipal & Community Affairs

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ELEVATORS AND FIXED CONVEYANCES REPORT 1983

This section of Protective Services provides a safer environment in public buildings and industry. Elevators and mechanical lifts are being utilized more in the Territory.

Elevators inspected	23
Tramways inspected	1
Ski Hills inspected	1
New designs inspected	1
Amusement Parks inspected	2

The Mayo Administration building elevator was commissioned. The T Bar in Watson Lake has been completed and will be in service upon completion of engineered requirements.

David W. Tessier
Chief Boiler Inspector
Municipal & Community Affairs

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EMERGENCY MEASURES PROGRAMME

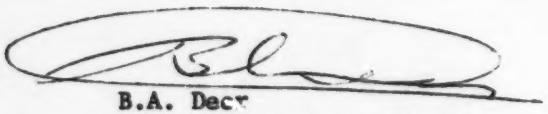
Responsibility for Emergency Measures was transferred from the Department of Economic Development to Municipal and Community Affairs in September 1983. Since the transfer, a five year joint emergency planning agreement has been negotiated with Emergency Planning Canada. A review of Emergency Measures Legislation and government policy is now in progress.

During 1983 sixteen candidates from Yukon communities attended emergency preparedness courses at Arnprior. These courses are sponsored by Emergency Planning Canada to assist persons who hold positions on community disaster committees.

Also during 1983, E.M.O. arranged for the repair and buildup of flood protection dikes at Mayo and Ross River. Emergency telecommunications equipment was acquired and is now being installed.

Two emergency exercises were successfully held; one at Whitehorse airport and a joint telecommunications exercise with N.W.T. Emergency Measures Programme.

Plans for 1984 include a review of municipal disaster plans and assisting communities to establish disaster committees as required under the new Municipal Act.



B.A. Dec
Yukon E.M.O. Co-ordinator
Municipal & Community Affairs

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AMBULANCE SERVICES

During 1983, Protective Services Branch provided service utilizing twelve full-time attendants in Whitehorse and over one hundred volunteer attendants throughout Yukon.

Ambulances are stationed at Beaver Creek, Carmacks, Dawson, Destruction Bay, Eagle Plains, Faro, Haines Junction, Mayo, Ross River, Teslin, Watson Lake and Whitehorse. There are presently seventeen vehicles available for service.

As part of the regular vehicle replacement program, one new ambulance was delivered to Faro.

The rural ambulance inspector conducted sixteen St. John Ambulance courses to a total of 219 participants, including volunteer attendants. Four C.P.R. courses were held for 41 persons.

B. Galloway
Deputy Fire Marshal
Municipal & Community Affairs

YUKON AMBULANCE SERVICE

LOCATION	1981		1982		1983	
	No. Calls	Total Km.	No. Calls	Total Km.	No. Calls	Total Km.
Beaver Creek	13	2806	20	4176	12	2592
Carmacks	32	7723	25	5768	33	10844
Dawson	61	2068	64	1558	61	1563
Destruction Bay	22	5522	21	5535	15	3052
Eagle Plains	1	418	0	0	3	1322
Faro	68	772	59	760	51	663
Haines Junction	23	4526	32	6678	23	4740
Mayo	17	607	25	876	25	784
Ross River	46	7740	58	8687	73	9365
Teslin	12	4326	15	5391	17	5524
Watson Lake	81	3747	88	3733	53	3033
Whitehorse	896	24832	859	22218	802	19657
TOTAL	1272	65087	1266	65380	1168	63139

FIRE SERVICES

Protective Services provides firefighting vehicles and equipment stationed at Beaver Creek, Carcross, Carmacks, Destruction Bay, Haines Junction, Keno, Old Crow, Pelly Crossing, Ross River, Teslin and Watson Lake.

The Yukon Fire Training School conducted courses, upon request, in ten communities. Three levels of training courses are available. Seventy-six volunteer firefighters and fourteen other persons received firefighting training.

Several in-depth fire investigations were undertaken where arson was suspected or the cause of fire could not be found.

Fire Prevention activities were maintained during 1983. Two hundred and eighty school children were given a presentation on this important subject. Eighty fire safety inspections were undertaken to ensure compliance with current legislation.

B. Galloway
Deputy Fire Marshal
Municipal & Community Affairs

Cause of Fires

The major cause of fires in 1983 continues to be related to operation of wood-burning appliances. A total of 88 fires occurred resulting in property damages of $536,927, up from $73,000 in 1982. Chimney fires rose from 32 in 1982 to 73 in 1983. Lack of maintenance or installation deficiencies remain the leading causes of such fires.

Major Losses (Over $150,000)

Date	Location	Occupancy	Cause	Loss
83.06.19	Whitehorse	Hotel	Overheated cooking oil	$160,532

James Smith Fire Prevention Plaque

Winners 1983:	Senior Category:	Tantalus School
	Intermediate Category:	Tantalus School
	Junior Category:	Elsa School
Individual Winners:	Senior Category:	Cheryl O'Connell
	Intermediate Category:	Laurie Brown
	Junior Category:	Robyn Andison

14 entries were received in total from the following schools: Tantalus (Carmacks), J.V. Clark (Mayo) and Elsa.

Associations and Committees

During the year, the Fire Marshal served as a member of the following Associations and Committees:

Member - Canadian Association of Fire Marshals and Fire Commissioners
Member - Joint Fire Prevention Publicity Committee Inc.
Member - Fire Safety Council, Canadian Standards Association
Member - Fire Council, Underwriters' Laboratories of Canada
Member - Provincial Advisory Committee, National Building Code
Member - Canadian General Standards Board
Member - Yukon Emergency Measures Committee
Member - Warnock Hersey Fire Council

TABLE 1 - ANNUAL STATISTICAL COMPARISON OF FIRES

Year	Fires	Fatalities	Injured	Fire Loss	Suspected Arson	% of fires in the home	% of fire loss covered by Insurance
1971	97	2	9	659,767	6	28%	52%
1972	79	1	3	382,236	5	27%	75%
1973	80	2	9	517,957	10	35%	*
1974	107	6	2	636,286	16	38%	69%
1975	105	6	4	1,563,470	17	26%	49%
1976	113	3	2	647,989	7	35%	52%
1977	95	2	3	813,392	5	28%	42%
1978	148	2	5	1,310,350	14	25%	42%
1979	110	0	12	821,444	10	40%	41%
1980	82	0	3	1,319,205	4	45%	80%
1981	113	3	7	5,853,176	15	43%	90%
1982	101	3	5	1,401,578	10	49%	52%
1983	190**	0	7	1,437,285	7	53%	69%

* Statistics not available

** Prior to 1983, only fires resulting in dollar loss were included

TABLE II - FIRE LOSSES - 1970 TO 1983 INCLUSIVE - YUKON COMMUNITIES OVER 100 POPULATION

Location	Total No. Fires	Total Fire Loss	Average Population*	Average Per Capita Loss
Beaver Creek	10	$ 40,726	121	$ 24.04
Carcross	16	22,433	230	6.96
Carmacks	13	125,039	326	27.39
Dawson	95	941,486	1073	62.67
Elsa	7	87,142	511	12.18
Faro	65	347,269	1441	17.21
Haines Junction	13	110,462	343	23.00
Mayo	46	1,077,105	462	166.52
Old Crow	10	2,016,495	197	731.14
Pelly Crossing**	8	119,092	107	101.18
Ross River	23	325,245	262	88.67
Teslin	14	168,251	336	35.76
Watson Lake	90	2,570,803	1155	158.98
Whitehorse	809	4,332,314	14532	21.29

* Supplied by Economic Research & Planning Branch, Government of Yukon

** 1973 - 1983 inclusive

TABLE III - FIRE LOSSES - YUKON COMMUNITIES - 1983

Location	Population*	No. of Fires	Other Calls	Total Calls	Fire Loss
Beaver Creek	111	1	0	1	$ 200
Burwash Landing	39	1	0	1	0
Carcross	257	2	1	3	1,000
Carmacks	373	0	0	0	0
Dawson	1,323	6	11	17	1,500
Destruction Bay	65	0	0	0	0
Elsa	322	1	0	1	30,000
Faro	1,309	2	2	4	2,500
Haines Junction	465	3	0	3	0
Keno	12	1	0	1	20,000
Mayo	455	2	3	5	1,000
Old Crow	217	1	0	1	5,500
Pelly Crossing	123	0	0	0	0
Ross River	274	2	0	2	0
Teslin	349	0	0	0	0
Watson Lake/Upper Liard	1,317	8	9	17	264,100
Whitehorse	16,098	139	135	274	638,131
Rural (unprotected)		21	0	21	473,354
TOTAL		190	161	351	$1,437,285

* Supplied by Economic Research & Planning Branch, Govt. of Yukon

TABLE IV - PROPERTY CLASSIFICATION

	No. of Fires	Total Loss
ASSEMBLY		
Schools	1	$ 49,000
Community/Recreation	3	8,000
Other	1	1,000
INSTITUTIONAL		
Prisons	0	0
Hospitals	0	0
RESIDENTIAL		
Dwellings	80	595,790
Apartments	11	34,635
Hotel/Motel	4	160,532
Mobile Home	6	94,364
BUSINESS/PERSONAL SERVICES		
Offices	2	2,250
MERCANTILE		
Stores	5	228,664
INDUSTRIAL MANUFACTURING	1	32,000
STORAGE	6	136,000
MISCELLANEOUS		
Cars/Lt. Trucks	31	58,992
Brush/Trash containers	33	0
Other	6	36,058
	190	$1,437,285

TABLE V - INCIDENT

Fire with loss	87
Fire, without loss	103
False Alarm	84
Alarm no fire	64
Hazardous condition	10
Rescue	3
Total alarms	351

TABLE VI - ACT OR OMISSION

Suspected or known arson	8	15,500
Misuse of source of ignition	82	63,623
Misuse of material ignited	14	284,466
Mechanical, electrical malfunction	25	229,168
Construction design or installation deficiency	13	230,267
Misuse of equipment	6	3,769
Human failing	16	224,241
Miscellaneous or Unknown	26	386,251
	190	$1,437,285

TABLE VII - ENERGY CAUSING IGNITION

Spark, Ember	27	351,625
Spark, Electrical	12	16,775
Direct flame	29	271,215
Hot object (conduction or radiation)	75	438,381
Heat from smokers material	9	83,189
Unknown or unclassified	38	276,100
	190	$1,437,285

TABLE VIII - MATERIAL FIRST IGNITED

Structural components, finish materials	19	461,246
Furniture, furnishings	9	36,337
Clothing, textiles	4	1,900
Wood, paper products	8	81,329
Flammable liquids	18	183,092
Creosote	56	141,295
Cooking oil, fat	7	169,481
Flammable gases	5	78,400
Miscellaneous	32	17,180
Unknown	32	267,025
	190	$1,437,285

TABLE IX - SOURCE OF IGNITION

Heating Equipment	77	759,689
Cooking Equipment	15	209,431
Smokers Material/Open flames	27	99,939
Electrical Distribution Equipment	15	57,785
Electrical Appliances & Equipment	3	725
Exposure/open fires	8	32,000
Miscellaneous	16	22,692
Undetermined	29	255,024
	190	$1,437,285

TABLE X - FUEL OR ENERGY (ASSOCIATED WITH SOURCE OF IGNITIO

Coal, wood	74	523,292
Fuel, oil	7	187,155
Gasoline	17	19,192
Propane	6	90,900
Smokers material/matches	26	132,004
Electricity	29	227,967
Unclassified	1	6,000
Unknown	30	250,775
	190	$1,437,285

POOR

QUALITY

ORIGINAL